

Colorado Department of Transportation
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 470A

Mile Post (ON)11: 12.446 mi

Bridge Key: F-16-MC

Inspection Date: 3/6/2012

Sufficiency Rating: 98.6 Not Eligible

Rgn/Sectn 2E/2M:	68	Hist Signif 37:	5	UW Inspection Date 93B:	
Trans Region 2T:	02	Posting status 41:	A	SI Date 93C:	
County Code 3:	059	Service on/un 42A/B:	6 1	Bridge Cost 94:	\$ 0
JEFFERSON		Main Mat/Desgn 43A/B:	6 2	Roadway Cost 95:	\$ 0
Place Code 4:	00000	Appr Mat/Desgn 44A/B:	0 0	Total Cost 96:	\$ 0
non-city		Main Spans Unit 45:	2	Year of Cost Estimate 97:	
Rte.(On/Under)5A:	1	Approach Spans 46:	0	Brdr Brdg Code/% 98A/B:	
Signing Prefix 5B:	3	Horiz Clr 47:	38.0 ft	Border Bridge Number 99:	
Level of Service 5C:	1	Max Span 48:	103.0 ft	Defense Highway 100:	0
Directional Suffix 5E:	0	Str Length 49:	200.0 ft	Parallel Structure 101:	R
Feature Intersected 6:		Curb Wdth L/R 50A/B:	0.0 ft 0.0 ft	Direction of Traffic 102:	1
KIPLING PARKWAY		Width Curb to Curb 51:	38.0 ft	Temporary Structure 103:	
Facility Carried 7:		Width Out to Out 52:	41.5 ft	Highway System 104:	1
SH 470 ML EBND		Deck Area:	8,300. sq. ft	Fed Lands Hiway 105:	0
Alias Str No.8A:		Min Clr Ovr Brdg 53:	99.99	Year Reconstructed 106:	0000
		Min Undrclr Ref 54A:	H	Deck Type 107:	1
Prll Str No. 8P		Min Undrclr 54B:	16.0 ft	Wearing Surface 108A:	6
F-16-MD		Min Lat Clmce Ref R 55A:	H	Membrane 108B:	2
Location 9:	328.05117409:	Min Lat Undrclr R 55B:	11.0 ft	Deck Protection 108C:	1
12.4 MI S. OF I 70		Min Lat Undrclr L 56:	6.00065615:	Truck ADT 109:	6 %
Max Clr 10:	99.99	Deck 58:	7	Trk Net 110:	1
BaseHiway Net12:	1	Super 59:	8	Pier Protection 111:	#
IrsinvRout 13A:	000000470A	Sub 60:	8	NBIS Length 112:	Y
IrrsubRout No13B:	00	Channel/Protection 61:	N	Scour Critical 113:	N
Latitude 16:	39d 33' 36"	Culvert 62:	N	Scour Watch 113M:	
Longitude 17:	105d 06' 38"	Oprrtg Rtg Method 63:	1 LF Load Fact	Future ADT 114:	39,397
Range18A:	69 W	Operating Rating 64:	71.0	Year of Future ADT 115:	2027
Township18B:	69	Inv Rtg Method 65:	1	CDOT Str Type 120A:	CPGC
Section18C:	3	Inventory Rating 66:	35.1	CDOT Constr Type 120B:	31
Detour Length 19:	0.6 mi	Asph/Fill Thick 66T:	003 "in"	Inspection Indic 122A:	
Toll Facility 20:	3	Str. Evaluation 67:	7	Inspection Trip 122AA:	
Custodian 21:	1	Deck Geometry 68:	6	Scheduling Status 122B:	
Owner 22:	1	Undrclr Vert/Hor 69:	7	Maintenance Patrol 123:	17
Functional Class 26:	12	Posting 70:	5	Expansion Dev/Type124:	O
Year Built 27:	1986	Waterway Adequacy 7:	N	Brdg Rail Type/Mod 125A/B:	R 0
Lanes on 28A:	2	Approach Alignment 72:	8	Posting Trucks 129A/B/C:	0 0 0
Lanes Under 28B:	4	Type of Work 75A:		Str Rating Date 130:	2/3/1997
ADT 29:	25,750	Work Done By 75B:		Special Equip 133:	-1
Year of ADT 30:	2007	Length of Improvment 76:	0.0 ft	Vert Clr N/E 134A/B/C:	X 99.99 0.00
Design Load 31:	6	Insp Team Indicator 90B:	GREEN TEAM	Vert Clr S/W 135A/B/C:	X 99.99 0.00
Apr Rdwy Width 32:	38.0 ft	Inspector Name 90C:	BUTKOVICHJ	Vertical Clr Date:	1/20/2010
Median 33:	1	Frequency 91:	24 months	Weight Limit Color: 139:	0
Skew 34:	0.00 °	FC Frequency 92A:	-1	Str Billing Type:	U
Structure Flared 35:	0	UW Frequency 92B:	-1	Userkey 1 - System:	ONSY
Sfty Rail 36a/b/c/d:	1 1 1 1	SI Frequency 92C:	-1	Userkey 7-Update Indic:	
Rail ht36h:	36 "in"	FC Inspection Date 93A:			

Inspector Name: BUTKOVICHJ

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Element Inspection Report

Elm/En	Description	Units	Total Qty	% in 1	CS 1	% in 2	CS 2	% in 3	CS 3	% in 4	CS 4	% in 5	CS 5
26/4	Conc Deck/Coatd Bars	(SF)	8,300	100 %	8,300	0 %	0	0 %	0	0 %	0	0 %	0
109/4	P/S Conc Open Girder	(LF)	1,188	100 %	1,188	0 %	0	0 %	0	0 %	0	0 %	0
210/4	R/Conc Pier Wall	(LF)	21	100 %	21	0 %	0	0 %	0	0 %	0	0 %	0
215/4	R/Conc Abutment	(LF)	83	100 %	83	0 %	0	0 %	0	0 %	0	0 %	0
234/4	R/Conc Cap	(LF)	41	100 %	41	0 %	0	0 %	0	0 %	0	0 %	0
306/1	Asphaltic Plg Exp Jt	(LF)	76	100 %	76	0 %	0	0 %	0	0 %	0	0 %	0
308/4	Constr Non Exp Jt	(LF)	82	100 %	82	0 %	0	0 %	0	0 %	0	0 %	0
321/4	R/Conc Approach Slab	(EA)	2	100 %	2	0 %	0	0 %	0	0 %	0	0 %	0
325/4	Slope Prot/Berms	(EA)	2	100 %	2	0 %	0	0 %	0	0 %	0	0 %	0
326/4	Bridge Wingwalls	(EA)	4	100 %	4	0 %	0	0 %	0	0 %	0	0 %	0
331/4	Conc Bridge Railing	(LF)	400	100 %	400	0 %	0	0 %	0	0 %	0	0 %	0
340/4	Superstr Cnc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
341/4	Substr Conc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
359/4	Soffit Smart Flag	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0

Elem/Env	Description	Element Notes
26/4	Conc Deck/Coatd Bars	2 to 3 inches of asphalt. Looks OK.
109/4	P/S Conc Open Girder	Right side of Girders 1A, 1B, 1C, 1D, and 1E have short diag. cracks with efflor. at top flange/web junct. Short horiz. cracks with efflor. at top flange/web junct. at 1D, midspan, 2A right side near Pier 2 and 2B right side near midspan.
210/4	R/Conc Pier Wall	Looks good.
215/4	R/Conc Abutment	Both abutment backwalls have diag. cracks at haunches near top flanges of girders. Light diag. crack at Abut. 3 backwall, right and left side of Girder 2C, bottom flange. Small delam. at Abut. 1 backwall, Bay B - Girder B and Bay C - Girder C, and Abut. 3 backwall, Bay C - Girder C, bottom flange. Spots of efflor. at Abut. 1 seat in Bays A and B.
234/4	R/Conc Cap	Looks good.
306/1	Asphaltic Plg Exp Jt	Moderate cracking over plug joints which are located between approach slabs and the approach roadway. See 2012 PHOTO.
308/4	Constr Non Exp Jt	Asphalt covered. 1/4 inch crack entire width at Abut. 1. 1/2 inch crack entire width at Abut. 3 with 1 inch settling. Up to 1.25 inch crack in shoulder areas.
321/4	R/Conc Approach Slab	Asphalt covered. No problems.
325/4	Slope Prot/Berms	Abut. 1 slope pave has settled 2 inches and has light horiz. crack. Slope pave at left side of A3, near wing, has settled up to 7 inches and fill is being washed out, see 2010 PHOTOS. Slope pave at right side of A3, near wing, has settled up to 2 inches, see 2010 PHOTOS. Slope pave at breastwall looks good. Light horiz. crack near Abut. 3 breastwall.
326/4	Bridge Wingwalls	Hairline horiz. cracks on all.

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331/4	Conc Bridge Railing	Several light vertical cracks. Finish peeling off, mostly on right side. Numerous scrape marks on both sides.
340/4	Superstr Cnc Coating	On exteriors and bottom flange of exterior girders, bottom flanges of interior girders, and bridge rail. Peeling off of bridge rail.
341/4	Substr Conc Coating	Peeling off of slope paves. Wings, abutments and pier wall looks good.
359/4	Soffit Smart Flag	Few light trans. cracks, some cracks with light efflor. Diag. cracks with light efflor. at corners of Abut. 1. The majority of cracking is near Pier 2. Couple of cracks in left overhang at pier. See SKETCH AND 2012 PHOTO.

Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
353.08	Br Dk Rpr	3/6/2012		2014	400

Seal cracking in asphalt along plug joints located between approach slabs and approach roadways.

Bridge Notes

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Inspection Notes

Time: 10:00	Temperature: 61 Degrees	Weather: P/C	Team leader: JWB	Inspector: J. Butkovich
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Scope:

☒ NBI: ☒ Element: ☐ Underwater: ☐ Fracture Critical: ☐ Other: Type: Regular NBI

Inspector: BUTKOVICHJ

Inspection Team:

Inspection Date: 03/06/2012

Inspector

Inspector